



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,264	01/21/2004	Kia Silverbrook	RRA11US	1034
24011 7590 07/08/2009 SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			EXAMINER FIDLER, SHELBY LEE	
			ART UNIT 2861	PAPER NUMBER
			MAIL DATE 07/08/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/760,264

Applicant(s)

SILVERBROOK, KIA

Examiner

SHELBY FIDLER

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 4/27/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/7/2009 has been entered.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 4/27/2009 was filed after the mailing date of the Final Office Action on 2/23/2009. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over McElfresh et al. (US 6557976 B2) in view of Inpyn (US 6053598) and Bolash et al. (US 6161915).

Regarding claim 1:

McElfresh et al. disclose a printer cartridge (printhead assembly 12 + ink supply assembly 14 housed together as a pen - col. 3, lines 45-47) for removable insertion in an inkjet printer, the printer cartridge comprising:

a printing fluid storage (reservoir 15);

a pagewidth printhead (printhead assembly 12) in fluid communication with the printing fluid storage (col. 3, lines 44-45), the pagewidth printhead having an elongate array of nozzles (nozzles 13) extending transverse to a media feed direction (Fig. 2), and further having a plurality of nozzle chambers (nozzle chamber 473) for holding printing fluid received from the printing fluid storage and supplying printing fluid to a nozzle of the elongate array of nozzles (col. 5, lines 10-11 & Fig. 3); and

a first electrical connector (electrical interconnect 69) in electrical communication with the printhead (col. 6, lines 8-19) and disposed adjacent a first end (right end shown in Fig. 5) of the elongate array of nozzles (Fig. 5) for releasably engaging a first corresponding connector of the inkjet printer (col. 5, lines 58-64).

McElfresh et al. do not expressly disclose that the first electrical connector engages the first corresponding connector with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinal compressive force acts on the printer cartridge when it is installed in the printer, or

that the printer cartridge comprises an authentication device provided on the first electrical connector.

However, Inpyn discloses a printer cartridge (10) that provides electrical connectors (contact pads 50) on each of both ends of an elongate array of nozzles (Fig. 18) such that the electrical connectors engage with corresponding connectors of an inkjet printer with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles such that a longitudinal compressive force acts on the printer cartridge when it is installed in the printer (Fig. 18). Inpyn teach that this electrical connection configuration occupies a minimal amount of space of the surface of the print head housing (col. 15, lines 48-52).

Also, Bolash et al. disclose a printer cartridge (18) comprising an authentication device (encoding circuit 37) provided on an electrical connector (Fig. 7A), the authentication device for authenticating one or more properties of the printer cartridge with the inkjet printer (col. 4, lines 32-34), the authentication device being connected to an authentication data bus (ID line 15) of the inkjet printer via the first corresponding connector (Fig. 7A). Bolash et al. teach that, by utilizing such an authentication device on the cartridge, the printer controller can adjust for proper printer operations with the installed printer cartridge (col. 1, lines 26-31).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to include an authentication device, such as that disclosed by Bolash et al., onto the first electrical connector of McElfresh et al.'s printer cartridge. It would have been further obvious to modify McElfresh et al.'s electrical connectors to be

oriented such that the electrical connectors engage with corresponding connectors of the inkjet printer with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles, such as suggested by Inpyn.

Regarding claim 2:

McElfresh et al.'s modified printer cartridge comprises all the limitations of claim 1, and **McElfresh et al. also disclose** that the printer cartridge includes a second electrical connector (electrical interconnect 69') disposed adjacent a second end (left end shown in Fig. 5) of the elongate array of nozzles for releasably engaging a second corresponding connector of the inkjet printer (col. 5, lines 58-64).

Therefore, after consideration of Inpyn's teachings, the second electrical connector of McElfresh et al.'s modified printer cartridge engages the second corresponding connector with a contact force that is parallel to the longitudinal extent of the elongate array of nozzles.

Regarding claim 3:

McElfresh et al.'s modified printer cartridge comprises all the limitations of claim 2, and **McElfresh et al. also disclose** that the printing fluid storage (15), the pagewidth printhead (12), and the first and second electrical connectors (69, 69') are attached to a body of the printer cartridge (Figs. 2, 5).

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Please see the above rejections based on the

disclosures provided by McElfresh et al., Inpyn, and Bolash et al. After consideration of these teachings, it would have been obvious to a person of ordinary skill in the art at the time of invention to utilize an authentication device provided on the first electrical connector.

Conclusion

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Graf et al. (US 7025440 B2) disclose a printer cartridge with electrical connectors on each of both sides of the cartridge body. Graf et al. explain that, when the cartridge is installed in a printer, the electrical connectors exert equal and opposite forces such that the electrical continuity between the printer and cartridge is ensured without the use of a latching device.

Communication with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHELBY FIDLER whose telephone number is (571)272-8455. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MATTHEW LUU/
Supervisory Patent Examiner, Art
Unit 2861

/Shelby Fidler/
Examiner, Art Unit 2861